

WHAT IS CLAIMED IS:

1. A method of processing a digital image having pixels to improve the sharpness of a print generated from the digital image comprising:
 - a) determining a magnification value representing the magnification of a pixel of the digital image on the print based on a number of input digital image pixels and an output number of digital image pixels;
 - b) producing a filter in response to the magnification value;
 - c) using the filter to operate on the digital image to adjust the sharpness of the digital image to produce a sharpened digital image;
 - d) resizing according to the magnification value the sharpened digital image to produce a resized sharpened digital image which includes the output number of digital image pixels; and
 - e) producing the print based on the resized sharpened digital image.
2. The method of claim 1 further including providing a continuous function and sampling the continuous function in accordance with the magnification value to produce coefficients of the filter.
3. The method of claim 1 including providing a default filter and adjusting the coefficients of such filter in accordance with the magnification value.
4. The method of claim 1 wherein the resizing according to the magnification value includes bilinear or bicubic interpolation.
5. A method of processing a digital image having pixels to improve the sharpness of a print generated from the digital image comprising:
 - a) determining a magnification value representing the magnification of a pixel of the digital image on the print based on the number of input digital image pixels and the output number of digital image pixels;

- b) producing a lowpass filter in response to the magnification value;
 - c) using metadata associated with the digital image to produce a gain value;
 - d) using the lowpass filter and the gain value to operate on the digital image to adjust the sharpness of the digital image to produce a sharpened digital image;
 - e) resizing according to the magnification value the sharpened digital image to produce a resized sharpened digital image which includes the output number of digital image pixels; and
 - f) producing the print based on the resized sharpened digital image.
6. The method of claim 5 wherein the metadata includes ISO, focal length, compression factor, or default.
7. The method of claim 5 wherein the gain value is computed by making a computation of the metadata.
8. The method of claim 5 wherein the lowpass filter and gain values are used in an unsharp masking process.
9. The method of claim 5 wherein the gain value is calculated in response to a balance value, a tonescale value, a noise value or combinations thereof.
10. The method of claim 5 where the gain value is calculated in response to a noise reduction process.
11. The method of claim 1 where the gain value is calculated in response to a noise reduction process.
12. A computer program product that practices the method of claim 1.
13. A computer program product that practices the method of claim 5.